

REMARKS/ARGUMENTS

Reconsideration of this application is respectfully requested.

The Examiner is thanked for noting some typographical errors in applicant's amendment of April 25, 2005. Those errors have been corrected above.

For the Examiner's information, it is noted that applicant has or soon will file a divisional application to continue prosecution of the claims as they were prior to the above RCE/amendment. However, these claims have been amended as above for further prosecution in the present parent application. The rejection of claims 1-5, 8, 13-17 and 20-23 under 35 U.S.C. §103 as allegedly being made "obvious" based on Margosian '315 in view of the newly cited Seo '986 reference is respectfully traversed.

The above amendments clarify the claimed invention for further prosecution in the present application:

Image range providing means and moving means are added to make it clear that three or more regions (e.g., slices) are spatially selected in a predetermined image spatial range and the imaging is based on the continuous movement of an object, that is a "moving bed (object) technique";

exciting means is limited more clearly to show that the three or more regions are excited in an alternate and interleaved excitation manner by which each region is excited at first intervals during each of which the remaining two or more regions are excited in turn at second intervals shorter than the first intervals (the first

intervals are expressed by, for example, an interval between the first and second slice positions of the slice ne3 in Fig. 2, while the second intervals are expressed by a nested interval defined between the first slice positions of the slices ne1 and ne2 in Fig. 2); and

position-moving means is rewritten to move spatial positions of the three or more regions so as to synchronously track a movement of the object.

In contrast, in Margosian '315, column 3, lines 59-64, "an imaging volume 10 which is twice the thickness of the maximum available slice is satisfactory. A width of two slices is sufficient to image an indefinite length of the patient when the patient is being moved continuously through the examination region." is described.

However, in Margosian's selection of two slices in the imaging volume 10, contrary to the present invention, the other slice cannot be excited during an interval at which one slice is excited, because the other slice cannot appear in the imaging volume 10 until the one slice disappears from the imaging volume 10. Thus, it is clear that Margosian '315 deliberately rejects employment of an alternate and interleaved excitation technique, which is employed by the present invention, and is based on the one-by-one excitation of plural slices as long as the object is continuously moved.

Margosian therefore has no room for accepting the interleaved slice excitation technique taught by other references such as Seo et al. Thus, merely combining Seo et al. with Margosian '315 cannot possibly provide the structures of the presently claimed invention.

In the presently claimed invention, limitations are recited such that, in imaging with an object moved, three or more regions (slices, for example) are selected in an imaging spatial range and those regions are excited on the alternate and interleaved technique. Thus, the overall scan time can be reduced, and quality of images can be improved due to the reduced scan time which has higher resistance to artifacts resultant from object's motions.

The rejection of claims 6, 9, 18 and 24 under 35 U.S.C. §103 as allegedly being made "obvious" based on Margosian in view of Seo in further view of Kuhn '636 is also respectfully traversed.

Fundamentally deficiencies of the primary and secondary references have already been noted above. Kuhn does not supply those deficiencies and, in view of the deficiencies already noted with the other references, it is not believed necessary at this time to discuss the additional deficiencies of Kuhn.

The rejection of claims 7, 10, 19 and 25 under 35 U.S.C. §103 as allegedly being made "obvious" based on Margosian in view of Seo in further view of Hajnal '478 is also respectfully traversed.

Once again, fundamental deficiencies of the first two references have already been noted above with respect to parent claims. Hajnal does not supply those deficiencies and in light of this it is not necessary to discuss the further deficiencies of Hajnal at this point.

The rejection of claim 11 under 35 U.S.C. §103 as allegedly being made "obvious" based on Margosian/Seo in further view of Pipe '088 is also respectfully traversed. Once again, the

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fundamental deficiencies of the first two references have already been noted above and Pipe does not supply those deficiencies. Accordingly, it is not believed necessary to discuss the further deficiencies of Pipe at this time.

Finally, the rejection of claim 12 under 35 U.S.C. §103 as allegedly being made "obvious" based on Margosian/Seo in further view of Miyamoto '305 is respectfully traversed.

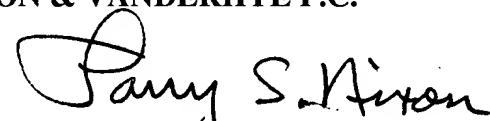
As above, fundamental deficiencies of the first two references have already been noted above with respect to parent claims. Accordingly, it is not believed necessary to discuss the further deficiencies of the third reference at this time.

In view of the above amendments, it is believed that this case is now in condition for prompt allowance. However, should the Examiner disagree, then it is respectfully requested that the undersigned be telephoned so that a suitable interview can be had at the time when the Examiner has this amendment and arguments freshly in mind so that a timely interview may be scheduled to discuss this matter further with the Examiner.

Respectfully submitted,

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